

## **Abstract**

- Title:** Accuracy in throwing on the vertical target depending on combination of crossed and identical hand - eye laterality in selected population of FTVS students.
- Objectives:** The aim of this study is determination of any disparity in success rate and darts distribution among selected strongly right-handed and left-handed population of male and female students of FTVS in throwing on the vertically positioned target.
- Methods:** The main research method was used descriptive association method. A total of 60 individuals were enrolled in the study. We used Musalek's test battery (2013) containing questionnaire part, preferential tasks and proficiency tests to define particular sidedness of individual probands. Further a specific task of the throw at the target was employed. For data analysis we used descriptive statistics methods, chi-squared test goodness of fit, analysis of variance, tetrachoric correlation and level of substantive significance expressed by Cohen's d.
- Results:** The results indicated that left-handed individuals did not show a significantly better accuracy in throwing at the vertically positioned target compared with right-handed individuals. It seems that gender is an important factor that affects the level of accuracy in the throws on target because male showed significantly better accuracy  $p < 0.05$  in all variants of throws. Placing darts from self-point of view at the ipsilateral field was statistically significant in individual subpopulations only in some variants of throws. Results of tetrachoric coefficient of correlation indicated a strong relationship between eye dominance and ocular preferences with variable values in the range 0.46 to 0.94.
- Keywords:** laterality, accuracy, throwing, preference, dominance, eye, hand